REMARKS

Reexamination and reconsideration of the application as amended are requested. Support for the rigidly threadably attached "without the use of a wheel nut" language is found from figures 1-2 and from page 5, lines 7-14 of the specification wherein it is stated that the bolt head 42 is seated against the spindle 32 and that torque is applied to secure the wheel stud 16 to the spindle 32. Neither figures 1-2 show, nor page 5, lines 7-14 of the specification mention, a wheel nut.

The examiner's rejection of claims 1 and 3 as being "anticipated", under 35 U.S.C. 102, is respectfully traversed. The examiner rejects these claims as being unpatentable over Wagner '103. Claim 3 depends from claim 1. Claim 1 now requires that the first external threads 28 (the threads which are rigidly threadably attached to the rotatable section 14 of the vehicle wheel bearing 10) of the wheel stud 16 be oppositely threaded with respect to the second external threads 30 (the threads which are the wheel-nut engaging threads) of the wheel stud 16. Wagner does not teach, suggest or describe this.

The examiner's rejection of claims 2, 5-6, 8-10, and 12-13 (and the examiner's anticipated rejection of claims 1 and 3) as being "obvious", under 35 U.S.C. 103, is respectfully traversed. The examiner rejects these claims as being unpatentable over Wagner '103 in view of Wierzchon '526. Claims 2 (and 3) and 5-6 depend from claim 1 and claims 9-10 and 12-13 depend from claim 8. Claims 1 and 8 require that the wheel stud 16 have first external threads 28 rigidly threadably attached to internal threads 22 of the wheel bearing 10 without the use of a wheel nut and have wheel-nut-engaging second external threads 30, wherein the first external threads 28 are oppositely threaded with respect to the second external threads 30.

Wagner's wheel stud is rigidly threadably attached to the wheel bearing without the use of a wheel nut but Wagner does not teach, suggest or describe that his wheel stud has oppositely threaded first and second external threads. Wierzchon's stud is not a wheel stud and is used to attach a master cylinder 12 to a brake booster housing 18 using a nut 37. In the absence of the master cylinder 12 and the nut 37, Wierzchon's stud 32 is not rigidly threadably attached to

internal threads 28 of the brake booster housing 18 but is pivotally threadably attached allowing the studs 32 to pivot to align themselves with mounting openings 64 of the master cylinder 12. Such pivotal threadably attachment is the crux of the Wierzchon invention and is provided to reduce undesirable stress due to misalignment caused by manufacturing tolerances (see column 1, line 32 to column 2, line 2 and especially column 1, lines 32-34). However, misalignment is not a problem when mounting vehicle wheels onto wheel studs, and trying to mount a vehicle wheel onto pivotable wheel studs would be undesirable. This is so because the vehicle wheel studs must be rigidly attached to the wheel bearing (in the absence of a wheel nut) to allow a vehicle wheel to be conveniently mounted on four or more vehicle wheel studs. Having four or more vehicle wheel studs be pivotally mounted on the vehicle wheel bearing (in the absence of a wheel nut) would make the mounting of a vehicle wheel extremely difficult and virtually impossible for one person to do alone. Mounting (including changing) a tire on a car using the stud attaching method of Wierzchon would be a real challenge at best compared to the ease of mounting offered by applicants' claimed invention.

The examiner wants to replace the rigidly-threadably attached stud (without the use of a wheel nut) of Wagner with the non-rigidly-threadably attached stud (without the use of a nut) of Wierzchon while changing the stud of Wierzchon into a rigidly-threadably attached stud (without the use of a wheel nut). The examiner's motivation for such replacement and change is "in order to take advantage of the deformation of a portion of a threaded on the first member to retain the stud in the spindle by compressive force thereby defining a unitary structure". Applicants do not understand such reasoning because it is such deformation which creates the pivotal threadable attachment of Wierzchon's stud in the absence of the nut (see column 3, lines 26-38). The only motivation in Wierzchon and/or Wagner to use the Wierzchon stud in place of the Wagner stud would be to provide a pivotal threadably attachment of the wheel stud to the wheel bearing (in the absence of a nut) in Wagner. Applicants' claims 1 and 8 require the wheel stud 16 to be rigidly threadably attached to the wheel bearing 10 without the use of a wheel nut.

The examiner's rejection of claim 7 as obvious, under 35 U.S.C. 132, is respectfully traversed. The examiner rejects this claim as being unpatentable over Kessen '370 in view of Wierzchon. Kessen discloses a wheel stud which is press-fitted to the wheel bearing. The only

motivation in Wierzchon and/or Kessen to use the Wierzchon threaded stud in place of the Kessen press-fit stud would be to provide a pivotal threadably attachment (as discussed in the previous two paragraphs) of the wheel stud to the wheel bearing (in the absence of a nut) in Kessen. Applicants' claim 7 requires the wheel stud 16 to be rigidly threadably attached to the wheel bearing 10 without the use of a wheel nut.

The general rule is that a section 103 rejection based upon a modification of a reference (such as modifying the pivotally-attached brake assembly stud of Wierzchon to be rigidly attached in the absence of a nut should the examiner consider making such modification) that destroys the intent, purpose or function of the invention disclosed in the reference (such as having the brake assembly studs of Wierzchon be pivotal in the absence of a nut to overcome the problem of stress when there are alignment problems due to manufacturing tolerances during mounting of a master cylinder to a brake booster) is not proper and the prima facie case of obviousness cannot be properly made. In other words, where there is no technological motivation for engaging in the modification and instead a disincentive, the rejection is improper. In re Gordon, 733 F.2d 900, 902 (Fed. Cir. 1984).

Also, where the suggested combination of references would require a substantial reconstruction and redesign of the elements shown in one of the references (such as modifying the pivotally-attached brake assembly stud in the absence of a nut of Wierzchon to be rigidly attached in the absence of a nut should the examiner consider making such modification) as well as a change in the basic principles under which the constuction of that reference was designed to operate (such as having the brake assembly studs of Wierzchon be pivotal in the absence of a nut to overcome the problem of stress when there are alignment problems due to manufacturing tolerances during mounting of a master cylinder to a brake booster), the combination is not a proper ground for rejection of the claims under section 103. In re Ratti, 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959).

Inasmuch as each of the rejections has been answered by the above remarks and amended claims, it is respectfully requested that the rejections be withdrawn, and that this application be passed to issue.

Respectfully submitted,

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